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## **CLAIMS**

- A topical ectoparasiticidal formulation comprising from about 0.1 to about 25 weight percent of an ectoparasiticide, from about 25 to about 99.9
  weight percent of a (C<sub>3</sub>-C<sub>6</sub>) branched alkyl (C<sub>10</sub>-C<sub>20</sub>) alkanoate spreading agent, and optionally up to about 70 weight percent of a miscibilizing agent compatible with organic solvent systems.
  - 2. A formulation of Claim 1 wherein the spreading agent is a (C<sub>3</sub>-C<sub>6</sub>) branched alkyl (C<sub>12</sub>-C<sub>16</sub>) alkanoate.
- 10 3. A formulation of Claim 2 wherein the  $(C_3-C_6)$  branched alkyl  $(C_{10}-C_{20})$  alkanoate is isopropyl myristate.
  - 4. A formulation of Claim 1, 2 or 3 wherein the ectoparasiticide is a spinosyn, or a physiologically acceptable derivative or salt thereof.
  - 5. A formulation of Claim 1, 2 or 3 wherein the ectoparasiticide is cyperpyrethrin.
    - 6. A formulation of Claim 1, 2, 3, 4 or 5 which further comprises a miscibilizing agent selected from formic, acetic, propionic, benzoic, butyric, valeric, caproic, benzoic, enanthic, caprylic, pelargonic, capric, undecylic, lauric, tridecylic, myristic, pentadecylic, palmitic, margaric, stearic, oleic, arachidic, behenic,
- 20 lignoceric, cerotic, montanic, triacontanoic, psyllic, or ceroplastic acids.
  - 7. A formulation of Claim 1, 2, 3, 4 or 5 which further comprises a miscibilizing agent selected from benzyl alcohol, ethylene glycol phenyl ether, D-limonene, N-methyl-2-pyrrolidinone, methylated soybean oils and soybean oil methyl esters.
- 8. A formulation of Claim 1, 2, 3, 4, 5, 6 or 7 which further comprises an effective amount of an antimicrobial agent.
  - 9. An article of manufacture, comprising packaging material and a topical formulation for controlling an ectoparasite infestation on a small ruminant or companion animal contained within said packaging material, wherein said
- 30 formulation comprises

a topical unit dose of a formulation of Claim 1, 2, 3, 4, 5, 6, 7 or 8; and,

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wherein said packaging material comprises a label or package insert with instructions for topically administering the dose to the animal.

- 10. A method of controlling an ectoparasite infestation on a small ruminant or companion animal, comprising topically applying to the hair and/or skin of the animal a formulation of Claim 1, 2, 3, 4, 5, 6, 7, or 8.
- 11. The method of Claim 10 wherein the formulation is applied using a spot-on protocol.
- 12. The method of Claim 10 wherein the formulation is applied using a pour-on protocol.
- 13. A topical ectoparasiticidal formulation comprising from about 0.1 to about 25 weight percent of an ectoparasiticide, from about 25 to about 99.9 weight percent of a (C<sub>3</sub>-C<sub>6</sub>) branched alkyl (C<sub>10</sub>-C<sub>20</sub>) alkanoate spreading agent, and optionally up to about 70 weight percent of a miscibilizing agent compatible with organic solvent systems, substantially as hereinbefore described with reference to any one of the Examples.